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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,676	06/26/2003	Timothy M. Crowder	9336-9	5387
20792 7590 08/03/2009 MYERS BIGEL, SIBLEY & SAJOVEC PO BOX 37428 RALEIGH, NC 27627				
EXAMINER NICOLAS, FREDERICK C				
ART UNIT		PAPER NUMBER		
3754				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/606,676

Applicant(s)

CROWDER ET AL.

Examiner

Frederick C. Nicolas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24, 51-53 and 61-76 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5, 14 and 72-75 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-13, 15-23, 51-53, 61, 62, 66-71 and 76 is/are rejected.
- 7) ☒ Claim(s) 24 and 63-65 is/are objected to.
- 8) ☒ Claim(s) 1-24, 51-53 and 61-76 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-848)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed subject matter "pre-defined" in claim 1 is not supported in the original filed specification. This is a new matter rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2,7,10,12-13,15-18,21-23,51-53,61-62,66-67,70-71 are rejected under 35 U.S.C. 102(b) as being anticipated by Abrams et al. 6,142,146.

Abrams et al. disclose a method of flowably dispensing or processing dry powders from a device having a dry powder flow path (col. 1, ll. 6-13 and col. 9, ll. 28-34), which comprises generating a first non-linear vibration input signal (90), the first non-linear input signal comprising a carrier frequency modulated plurality of different

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selected frequencies that correspond to a first non-pharmaceutical dry powder formulation (col. 6, ll. 34-39), and applying the first non-linear vibration input signal to a portion of a dry powder flow path while the first dry powder formulation is flowing therethrough (col. 7, ll. 22-42), the input signal is derived from an evaluation of time between avalanches as detected in a mass flow analysis of the dry powder formulation (col. 7, ll. 7-63 and further, it is inherent that the input signal of Abrams et al. is derived from an evaluation of time between avalanches as detected in a mass flow analysis of the dry powder formulation in as much as the applicants claimed invention).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-4,6,8-9,11,76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abrams et al. 6,142,146.

Schuller et al. have taught all the features of the claimed invention except that the dispensing step is carried out to serially dispense metered quantities of between 10 μ g-10mg, as well as the claimed subject in claims 4,6 and 76.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the dispensing step of the metered quantities of Abrams et al. to be between 10 μ g-10mg and as well as the claimed subject matter in claims 4,6 and 76, since it has been held that where the general conditions of a claim are

disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. As per MPEP 2144.05

With respect to the claimed subject matter "wherein the dry powder comprises a toner powder", as well as the claimed subject matter in claims 9,11.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the powder of Abrams et al. with a known type of powder "a toner powder" as well as the products recited in claims 9 and 11, as the device of Abrams et al. is clearly capable of dispensing them and would be a known type of product to be dispensed in a small batch.

7. Claims 19-20,68-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abrams et al. 6,142,146.

Abrams et al. have taught all the features of the claimed invention except that the non-linear input signal comprises frequencies in the range of between about 10Hz to 1000kHz, as well as the claimed subject in claim 20.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the non-linear input signal of Abrams et al. to have frequencies in the range of between about 10Hz to 1000kHz or 15KHz to 50 KHz, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. As per MPEP 2144.05

Allowable Subject Matter

8. Claims 5,14,72-75 are allowed.

9. Claims 24,63-65 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments filed 5/1/2009 have been fully considered but are moot in view of the new ground(s) of rejection. Applicants argue that the reference of Abrams fails to teach or suggest the use of a carrier frequency modulated by a plurality of different frequencies. The examiner disagrees. Please note that in column 6, lines 34-39, Abrams teaches the used of a carrier frequency modulated by a plurality of different frequencies. With respect to applicants' argument that the reference of Abrams teaches away from the claimed signal, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Abrams teaches a method of flowably dispensing or processing dry powders from a device having a dry powder flow path (col. 1, ll. 6-13 and col. 9, ll. 28-34), which comprises generating a first non-linear vibration input signal (90), the first non-linear input signal comprising a carrier frequency modulated plurality of different selected frequencies that correspond to a first non-pharmaceutical dry powder formulation (col. 6, ll. 34-39), and applying the first non-linear vibration input signal to a portion of a dry powder flow path while the first dry powder formulation is flowing therethrough (col. 7, ll. 22-42). Since, Abrams discloses

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the claimed limitations as noted above, then, Abrams does not teach away from applicants' claimed signal.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick C. Nicolas whose telephone number is (571)-272-4931. The examiner can normally be reached on Monday - Friday from 9:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin P. Shaver, can be reached on 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Frederick C. Nicolas/
Primary Examiner, Art Unit 3754